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BEFORE THE
Federal Communications Commission
WASHINGTON, D.C. 20554

APR 21 1997

Federal Communications Commission
Office of Secretary

In the Matter of

Amendment of the Commission's Rules
Regarding Multiple Address Systems

WT Docket No. 97-81

To: The Commission

COMMENTS OF GTECH CORPORATION

GTECH Corporation ("GTECH"), by its counsel, hereby submits these comments in response to the Notice of Proposed Rule Making in the above captioned proceeding.¹ In its Notice, the Commission asks for comments regarding use of the 900 MHz spectrum allocated to Multiple Address Systems ("MAS") in the Fixed Microwave Services. As detailed herein, GTECH urges the Commission to adopt rules and policies assuring the continued availability of MAS spectrum critical to the internal communications requirements of private users.

I. Background.

GTECH is the world's leader in computerized systems and services developed for government-authorized lotteries. This expertise is also widely applicable to other government services requiring secure, high-volume data transactions, such as electronic benefits processing. GTECH operates over 79 lotteries in 32 countries, including most of the state lotteries in the United States. In these states, GTECH has established efficient, secure and effective

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¹ Notice of Proposed Rule Making, WT Docket No. 97-81, FCC 97-58, released February 27, 1997 ("Notice").

communications links for state lottery systems. Revenues generated by these lottery sales contribute billions of dollars annually to government projects and programs such as education, youth sports and economic development.

GTECH's private, internal communications networks are vital to the efficient and secure operation of a state's lottery and the ability of the state to maximize revenue's through its lottery. As a critical part of its telecommunications infrastructure in the United States, GTECH relies on MAS systems to transmit data from lottery and other point-of-sale terminals to its data centers in order to process millions of lottery and other transactions every day. Currently, GTECH is the licensee of over 300 MAS systems in over 14 states across the United States.

II. It Is Critical To The Public Interest That The Commission's Regulatory Approach To MAS Licensing Assure The Continued Availability Of Spectrum For Private, Internal Operations, Such As Those Conducted By GTECH.

The continued availability of MAS frequencies is vital to the internal communications needs of GTECH in the operation of its business and to the important public interest benefits derived from state lotteries. Because of the billions of dollars at stake to state educational systems and other public services it is critical that the Commission's actions in this proceeding not jeopardize the availability of spectrum for secured, internal use in the operation of state lotteries.

In order to assure spectrum for these vital public interest needs, and as fully set forth below, GTECH supports the Commission's proposal to designate the 928/952/956 MHz MAS bands exclusively for private use. Moreover, GTECH urges the Commission to adopt an allocation plan that does not preclude private use of the other MAS bands at 928/959 and

932/941 MHz. GTECH further supports the continued licensing of these frequencies on a site-by-site basis and recommends that the existing operations of incumbent licensees be fully protected from interference by new licensees. GTECH, however, strongly opposes the introduction of subscriber-based mobile operations into any of the MAS frequency bands. Finally, GTECH urges the Commission to make provisions such as bidding credits and payment terms available to private users in any auction of MAS spectrum and to permit geographic partitioning and spectrum disaggregation by auction winners.

A. Spectrum Allocation Plan

1. Treatment of the 928/952/956 MHz bands

GTECH wholeheartedly agrees with the Commission's tentative conclusion that the 928/952/956 MHz bands should be designated *exclusively* for private, internal use. (*Notice*, ¶12). As the Commission's data base shows, this spectrum already is "used overwhelmingly for private service...to satisfy internal communication needs." (*Notice*, ¶12). In fact, GTECH's own licensing authorizations support this finding. The vast majority of MAS licenses held by GTECH for its internal needs in servicing state lotteries are in these bands.

In addition, based on GTECH's understanding of other users in these bands, the overwhelming use of these frequencies is to satisfy their private, internal communications needs. Moreover, in light of the small amount of spectrum comprising these bands (1.7 MHz of paired spectrum and 200 kHz of unpaired spectrum), and the existing, overwhelmingly private use of this spectrum, a private use set aside will unduly limit the amount of spectrum available for subscriber-based service providers. Finally, an exclusive allocation for private use in the 928/952/956 MHz bands will serve the public interest by allowing private users to obtain

spectrum as their needs arise without having to compete with subscriber-based carriers whose spectrum requirements are somewhat different. These facts therefore support the Commission's tentative conclusion to designate the 928/952/956 MHz bands as a "set aside" to meet the internal communications needs of private users.

However, there is a strong existing and future demand for private use spectrum which cannot be satisfied under the current 928/952/956 MHz allocation. For example, as GTECH expands its services into additional states, its need for MAS spectrum in these areas also increases. While GTECH has an immediate need for MAS frequencies in both urban and rural areas, none are available under the current allocation in urban areas and very few are available even in less populated areas. The scarcity of available frequencies reflects the high demand placed on them by private users. Indeed, GTECH estimates that over the next five years, it will have a need for over 400 frequency pairs distributed throughout thirty states in order to meet its growing internal communications needs. Under the current allocation, these needs will go unmet. Accordingly, as explained below the Commission should permit private use of the other MAS bands which are the subject of this proceeding.

2. Treatment of the 932/941 and 928/959 MHz bands

While GTECH agrees with the Commission's decision to reserve the 928/952/956 MHz bands for private, internal use, it disagrees with the Commission's tentative conclusion to treat the 928/959 and 932/941 MHz bands as a whole and to reserve both bands for subscriber-based service. The Commission argues that the "MAS service is evolving into a service where licensees primarily seek to provide subscriber-based services," (*Notice*, ¶12) relying on the fact that the vast majority of applicants for the 932/941 MHz frequencies sought to provide

subscriber-based services and that the majority use of the 928/959 MHz band is subscriber-based.

GTECH submits that these facts do not support such a conclusion.

The reason that most of the 50,000 applications for the 932/941 MHz band proposed subscriber-based service is that most of the applicants were interested in exploiting the asset value of the license, not in actually constructing and operating MAS systems. Such speculation, which occurred over five years ago during the heyday of application mills, should not be relied upon as marking a current trend towards subscriber-based MAS service.

Moreover, the reason that the majority of licensees in the 928/959 MHz band provide subscriber-based service is simply because that frequency band is allocated on a primary basis to common carriers for that purpose. The Commission should not misconstrue the facts to suggest that the current demand for subscriber-based MAS frequencies is stronger than the current demand for private MAS frequencies. In fact, from GTECH's perspective, the immediate demand for private MAS spectrum far exceeds that for subscriber-based MAS spectrum.

Accordingly, rather than designate both the 932/941 and 928/959 MHz bands for subscriber-based services, and subject both to geographic area licensing and auctions, GTECH submits that the 928/959 MHz band should remain a shared (private and common carrier) band, licensed on a site-specific basis. The 932/941 MHz band also should be designated for either subscriber-based or private use, but should be licensed on a geographic area basis pursuant to auction. This approach would recognize the Commission's goal of expediting the assignment of licenses through auction, while not precluding the ability of private users to access much needed frequencies by themselves participating in the auctions. More importantly, this recommended

allocation plan, by making additional spectrum available for private, internal uses, more accurately reflects the greater relative demand for private versus subscriber-based spectrum.

B. MAS Licensing Issues

1. Geographic area versus site-specific licensing: Service areas

The Commission should further maximize the availability of the 928/952/956 and 928/959 MHz bands for private use by continuing to license systems in these bands on a site-by-site basis. Geographic licensing over large areas is not compatible with the needs of most private users in these bands. Typically, private user requirements are within a relatively small site-specific area. Therefore, wide-area licensing for private users could result in spectrum warehousing with no countervailing public interest benefits.

On the other hand, GTECH recognizes the potential benefits that geographic licensing could have for subscriber-based licensees in the 932/941 MHz band. Thus, GTECH supports such licensing in that band, but submits that the typical geographic area served by MAS licensees is smaller than the EAs tentatively selected by the Commission. Instead, GTECH recommends the adoption of service areas the size of MSAs and RSAs or BTAs. Service areas of this size would permit viable MAS service without a significant increase over EAs in terms of the Commission's administrative burden. Smaller service areas would have the additional benefit of permitting greater participation by small entities in any auction for these frequencies.

2. Treatment of incumbent licensees

If, contrary to GTECH's recommendation, the Commission nevertheless adopts geographic licensing in the 928/959 MHz band, it is imperative that the Commission permit incumbent licensees in that band to continue operating under their current authorizations and

require any new geographic area licensees to protect the incumbents. In the *Notice*, The Commission suggests an approach whereby geographic area licensees would be required to protect incumbent co-channel licensees based on an assumed 25-mile service area, with the incumbent licensee permitted to modify their systems provided the signal level is not increased beyond this 25-mile area. (*Notice*, ¶20). GTECH submits that such an approach is ill-suited to the real world implementation of MAS systems. For example, GTECH and other incumbent licensees have numerous remote stations located well beyond a distance of 25 miles from the associated master stations, especially in mountainous rural areas. For these systems, an assumed 25-mile service area would require the incumbent licensee to remove outlying remote stations from service. Instead, the Commission should define the protected service area either in terms of the current mileage separation criteria set forth in the existing rules or in terms of a specific field strength measured from the most distant remote site.

C. Mobile Operations

GTECH strongly believes that the authorization of subscriber-based mobile operations in any of the MAS bands is incompatible with existing and future MAS usage. Widespread mobile voice applications, in particular, will impair MAS licensees operating at fixed locations, introducing a high level of harmful interference and unnecessarily degrading existing service. Voice transmissions are much better able to tolerate co-channel interference than are data systems. GTECH's business is reliant on highly redundant, secure data communications. If GTECH currently experiences interference from a co-channel transmission, it often is able to locate the interfering signal because of its fixed nature and resolve the interference with the licensee. Mobile transmitters, however, would wreak havoc on GTECH's existing systems and it

would be virtually impossible to remedy the resulting interference given their mobile nature. Accordingly, GTECH strongly opposes the introduction of subscriber-based mobile services in all MAS bands.

D. Competitive Bidding Issues

As set forth above, GTECH has recommended that the Commission auction MAS licenses only in the 932/941 MHz band, and that private users not be precluded from participating in the auction. However, in order assist private users in satisfying their well-documented need for additional private MAS spectrum, GTECH submits that any auction rules adopted for MAS spectrum should make provisions such as bidding credits and payment terms available to private user applicants. Such measures would help offset the inherent disadvantage that private users would have when bidding against entities that can pay for their licenses through subscriber-based revenues. As a further measure, the Commission should permit all auction winners to partition their service areas and to disaggregate their spectrum. This would enable private users to negotiate with subscriber-based licensees to gain access to frequencies in geographic areas that the subscriber-based licensee won at auction but may not otherwise need.

III. GTECH Urges The Commission To Adopt Rules And Policies That Will Promote Maximum Utilization Of The Spectrum.

In addition to setting aside spectrum solely for private use, the Commission should take steps to further assure that all MAS spectrum is, in fact, utilized in both a timely and efficient manner. This is particularly important given the widespread knowledge that numerous subscriber-based licensees in the 928/952/956 and 928/959 MHz bands have failed to construct their systems in a timely manner or at all. Therefore, GTECH recommends that the Commission

adopt rules implementing a "finder's preference" program for the 928/952/956 and 928/959 MHz MAS bands similar to that utilized for 800 and 900 MHz Specialized Mobile Radio (SMR) systems. *See* 6 FCC Rcd 7297 (1991). Such a program would assist in the Commission's channel recovery efforts and allow those entities most in need of spectrum to locate unused frequencies through their own efforts and, if successful, be awarded licenses for those frequencies. Private users, such as GTECH, which have significant and growing MAS requirements should not be penalized by those licensees that hoard spectrum without providing any service. However, in order to simplify the process and avoid the types of evidentiary issues which occurred in the SMR finder's preference program, the Commission should award licenses only in those situations where evidence demonstrates that *no construction at any licensed location* took place within the relevant time frame.

Second, the Commission should either immediately process all pending mutually exclusive applications for frequencies in the 928/952/956 MHz bands using the existing random selection procedures or, simultaneously with the adoption of new rules pursuant to this proceeding, dismiss all such applications and reopen filing windows for what would be newly-designated private-use-only frequencies. While either action would make long overdue spectrum available, the first method would take less time, but the second would provide more frequencies for exclusive private use.

Third, in order to speed the licensing of new MAS systems while promoting efficient spectrum utilization, GTECH believes that in the 928/952/956 MHz bands, the Commission should encourage marketplace settlements in those situations where there are mutually exclusive applications. The Commission should provide a 60-day period for the applicants to work out a

marketplace agreement. If no such settlement occurs, the Commission should move *expeditiously* to award the license through random selection as provided-for in the Commission's existing rules.

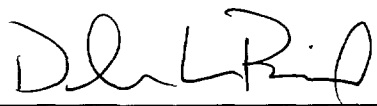
Finally, in order to assure that vital MAS spectrum does not lie fallow, GTECH believes that the Commission should reduce the construction period for MAS systems from 18 to 12 months. This will serve to diminish unnecessary spectrum hoarding and free up spectrum for those users with immediate operational requirements. A 12-month construction time period is sufficient in most cases. The Commission can accommodate those situations which require a longer time period by the granting of waiver requests.

IV. Conclusion

As demonstrated above, the continued availability of MAS spectrum for critical private, internal communications is essential for the existing and future needs of private users such as GTECH. Accordingly, the Commission should take action in this proceeding consistent with the views expressed herein.

Respectfully submitted,

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